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**(54) FUEL FLOW-STABILIZING PLATE FOR FUEL
CELL**

(57) Abstract:

PURPOSE: To ensure fuel gas to be fed stably into the fuel cell body by equipping a reformer with stabilizing plates of such constitution that each outside surface of truncated cone-shaped diffusion plate having small-diameter and large-diameter opening ends are raisedly provided with plural fins spirally extended between both the opening ends.

CONSTITUTION: A reformer 10 is equipped with fuel flow-stabilizing plates 11A-11C of such constitution that each outside surface of truncated cone-shaped diffusion plate 13 having small-diameter opening end 13a and large-diameter opening end 13b is raisedly provided with plural fins 14 spirally extending between both the opening ends 13a and 13b. And, air is introduced, through an air feed fan 8, into the reformer 10 where fuel 1 is supplied to a burner nozzle 2 and combusted, and the combustion gas produced is diffused in a spiral fashion through the stabilizing plates 11A-11C to uniformly heat a vaporizer 4 and a superheater 5 in high efficiency. At the same time, fuel is supplied via a reforming fuel feed pipe 3, vaporized at the vaporizer 4, superheated at the superheater 5, and then reformed

in a catalyst bed 6 into a hydrogen-rich gas, which is then fed as a fuel gas, via a feed pipe 7, into the fuel cell body.

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